

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A display device having display states which are prescribed by distribution states of particles, the display device comprising:

a drive circuit applying a first electric field of a first polarity to the particles for changing the distribution state thereof into a certain state, and applying a second electric field of the first polarity to the particles for maintaining or stabilizing the certain state.

2. (previously presented) A display device according to claim 1, wherein said particles are contained in a microcapsule together with a liquid for dispersing said particles.

3. (previously presented) A display device according to claim 1, further comprising a plurality of scanning electrodes and data electrodes for applying the electric fields to said particles in pixel units.

4. (previously presented) A display device according to claim 1, further comprising a plurality of scanning lines and data lines for independently applying the electric fields in pixel units to said particles.

5. (previously presented) A display device according to claim 4, wherein a switching element is disposed in correspondence with the intersection of said plurality of scanning lines and plurality of data lines.

6. (original) A display device according to claim 5, wherein said switching element comprises a semiconductor element.

7. (previously presented) A display device according to claim 6, wherein said semiconductor element comprises a thin film transistor.

8. (previously presented) A display device according to claim 5, wherein said switching element comprises a two-terminal nonlinear element.

9-22. (cancelled)

23. (currently amended) A recording medium having recorded states that are prescribed by distribution states of particles, the recording medium being structured so as to be capable of applying a first electric field of a first polarity to the particles for changing the distribution thereof into a certain state, and applying a second electric field of the first polarity to the particles for maintaining and stabilizing the certain state.

24. (previously presented) A recording medium according to claim 23 formed by filling liquid having charged particles dispersed therein between an active matrix substrate, in which switching elements and pixel electrodes disposed in correspondence with said switching elements and pixel electrodes disposed in correspondence with said switching elements are arranged in an array, and an opposed substrate; structured to be capable of writing data by moving charged particles by applying the electric fields for each pixel between said active matrix substrate and said opposed substrate; and structured to be capable of refreshing at prescribed intervals the data of each pixel written pursuant to said second electric field applied by said drive circuit.

25. (previously presented) A recording medium according to claim 23, wherein said particles are contained in a microcapsule together with liquid for dispersing said particles.

26. (previously presented) A recording medium according to claim 23, wherein a single pixel is structured of a plurality of sub pixels, and gradation is controlled by pulse-surface-area modulation.

27. (previously presented) A recording medium according to claim 23, wherein said particles are formed of a plurality of charged particles with differing quantities of electric charge.

28-29. (cancelled)

30. (currently amended) An electrophoretic device, comprising:
a layer including a dispersing media and a plurality of charged particles contained in the dispersing media, and
a circuit controlling electric fields applied to the layer wherein a distribution state of the particles is defined by the electric field applied thereto, the circuit being capable of providing the layer with a first electric field of a first polarity for changing the distribution state of the particles into a certain state and a second electric field of the first polarity for maintaining or stabilizing the certain state.

31. (previously presented) A display device according to claim 30, wherein said particles are contained in a microcapsule together with liquid for dispersing said particles.

32. (previously presented) A display device according to claim 30, further comprising a plurality of scanning lines and data lines for independently applying the electric fields in pixel units to said particles.

33. (currently amended) An apparatus for driving an electrophoretic device, the apparatus being capable of controlling electric fields applied to a layer in which a dispersing media and a plurality of charged particles are contained, wherein the apparatus is set to provide the layer with a first electric field of a first polarity for changing the distribution state of the particles into a certain state and a second field of the first polarity for maintaining or stabilizing the certain state.

34. (previously presented) A display device according to claim 33, wherein said particles are contained in a microcapsule together with liquid for dispersing said particles.

35. (previously presented) A display device according to claim 33, further comprising a plurality of scanning lines and data lines for independently applying the electric fields in pixel units to said particles.

36. (currently amended) A method for driving an electrophoretic device comprising the steps of:

applying a first electric field of a first polarity to a layer including a dispersing media and a plurality of charged particles contained in the dispersing media for writing data;

judging whether the data is to be renewed; and

applying a second electric field of a second polarity to the layer for maintaining or stabilizing the data providing that the data is not renewed.

37. (currently amended) The method for driving an electrophoretic device according to claim [[32]] 36, wherein the second electric field is applied if a certain period of time passes.

38. (previously presented) A display device according to claim 37, wherein said particles are contained in a microcapsule together with liquid for dispersing said particles.

39. (previously presented) A display device according to claim 37, further comprising a plurality of scanning lines and data lines for independently applying the electric fields in pixel units to said particles.